

**Appl. No.: 09/626,191**  
**Amdt. dated September 17, 2003**  
**Reply to Office action of June 17, 2003**

### **REMARKS/ARGUMENTS**

Applicants received the Office Action dated June 17, 2003, in which the Examiner: (1) objected to claims 7 and 14 due to typographical errors; (2) rejected claims 3 and 11 as being indefinite under 35 USC 112, 2<sup>nd</sup> paragraph; and (3) rejected claims 1-15 as obvious over Technology Strategy, Inc. (hereafter referred to as TSI). In this Response, Applicants amend claims 1-4, 10, and 12-13. No claims have been added. Claims 6, 7, 11, and 14 have been canceled. Applicants respectfully request reconsideration and allowance of the pending claims.

#### **I. CLAIM OBJECTIONS**

Claims 7 and 14 have been canceled thereby mooting the claim objections.

#### **II. CLAIM REJECTIONS**

##### **A. The § 112 Rejections**

Claim 3 has been amended to address the Examiner's § 112 indefiniteness rejection. Claim 11 has been canceled thereby mooting the § 112 rejection.

##### **B. The Art Rejections**

Examiner cited three references describing services provided by TSI. The references are: (1) screenshots of TSI's homepage (reference A); (2) an article, "Looking Back to Fashion's Future" by Ackerman of the Boston Globe (reference B); and (3) an article, "Merchants Try Complex Math Tools to Improve Inventory Decisions" by Koloszyk from Stores Magazine (reference C). Reference A teaches that TSI uses data mining, mathematical modeling, genetic optimization, and Monte Carlo simulation to develop analytical engines for forecasting sales and inventory requirements. Reference A further teaches that the analytical engines were designed for short-cycle non-linear behavior (*i.e.*, fashion merchandise). The analytical engines are used to optimize the timing and depth of markdowns, the allocation of inventory to stores, and the amount of inventory to enhance probability of maximum gross profits (see TSI's "Solutions" and "About TSI" homepage). Reference B teaches that TSI offers a computer

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analysis of past selling history within a chain of stores. Further, reference B teaches that TSI provides custom analysis of historic sales patterns to develop forecasts of the sizes and colors that may be needed in individual stores at various times of the year (see reference B, pg. 2, paragraph 8, pg. 3, paragraph 5). Reference C teaches that TSI analyzes historic data and creates a statistically derived forecast of future demand. Reference C also teaches that TSI provides a Gross Margin analysis, a Product Life Cycle analysis and a Volume-Price Engame analysis.

Applicants amended claim 1 to include a future demand extrapolation module "to extrapolate the total life-cycle demand of the new product by calculating an average demand per time period of each of the similar products, associating each average demand per time period with a date that represents a midpoint of the life-cycle of each similar product, and calculating an estimate of the average demand per time period at the date of the midpoint of the life-cycle of the new product." None of the art of record teaches or suggests a demand extrapolation module as claimed.

The Examiner also correctly recognized that the art of record does not teach normalizing and averaging demand profiles of the similar products as required in claim 1. The Examiner, however, simply noted that such limitations are "old and well known." It is, of course, difficult for Applicants to refute such an allegation without documentary evidence on which the Examiner bases the allegation. Applicants respectfully request that the Examiner provide documentary evidence to support the contention or else withdraw the rejection. For at least these reasons, Applicants submit that claims 1 and dependent claims 2-5 and 8-9 are allowable.

Claim 2 was amended to add the term "and." Claim 2 requires "a relevant product selection module that selects the similar products." None of the references cited by the Examiner teaches or suggests a product selection module that selects the similar products. The references broadly teach historical demand data is obtained as described by the Examiner, (see Office Action pg. 5, paragraph 3). However, there is no teaching or suggestion of a relevant product

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selection module that selects similar products as required in claim 2. For this reason, as well as those described above, claim 2 is allowable.

Claim 4 was amended to clarify phrases used in the claim. Such amendments do not narrow the scope of claim 4. Claim 4 requires averaging all the normalized demand profiles by "discretizing each profile at a pre-specified number of equidistant points" and "calculating an empirical mean and an empirical standard deviation of the demand profiles of the similar products at the equidistant points to yield an averaged demand profile as the demand profile of the new product." None of the art of record teaches these limitations. The Examiner cites reference A as teaching that TSI analyzes weekly sales. However, reference A teaches that TSI analyzes the weekly sales during the season to determine markdowns and allocation decisions. Reference A does not teach the above cited limitation. For these additional reasons, claim 4 is allowable.

Claim 5 requires estimating "variance information of the normalized and averaged demand profiles." None of the references cited by the Examiner teach this limitation. For this additional reason, claim 5 is allowable.

Claim 8 requires providing a "revised new total life-cycle demand estimate." None of the references teaches this limitation. Reference A refers to analyzing weekly sales and inventory data during a product season. However, there is no indication in reference A that a revised new total life-cycle demand profile is provided as required in claim 8. For this additional reason, Applicants claim 8 is allowable.

As amended, independent method claim 10 requires "wherein generating the total life-cycle demand of the new product comprises calculating an average demand per time period of each of the similar products, associating each average demand per time period with a date that represents the midpoint of the life-cycle of each product, and using the average demand profile per time period at the midpoint of the life-cycle of each similar product to calculate an estimate of the average demand per time period at a midpoint of the life-cycle of the new

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product." None of the art of record teaches or suggests this combination of features and thus claims 10 and dependent claims 12, 13, and 15 are allowable.

Claim 12 requires "discretizing each profile at a pre-specified number of equidistant points" and "calculating an empirical mean and an empirical standard deviation of all the profiles." As explained above, none of the art of record teaches these limitations. For these additional reasons, claim 12 is allowable. Claim 12 was amended to ensure proper antecedent basis of various claim terms as well as to remove reference to the phrase "the step of" to ensure claim 12 is not interpreted under 35 U.S.C. § 112, 6<sup>th</sup> paragraph.

Claim 13 requires estimating "variance information of the normalized and averaged demand profiles." As explained above, none of the art of record teaches these limitations. For these additional reasons, claim 13 is allowable. Like claim 12, claim 13 was amended to remove reference to phrases "the step of" to ensure claim 13 is not interpreted under § 112, 6<sup>th</sup> paragraph.

Claim 15 also includes features not found in the art of record. For example, claim 15 specifies that "if the past demand information of the new product is available, then [the method comprises] providing a revised new total life-cycle demand estimate using (1) the total life-cycle demand of the similar product, (2) the demand profile of the new product, and (3) the past demand information of the new product." Applicants do not find this combination of limitations in the art of record.

### **III. CONCLUSIONS**

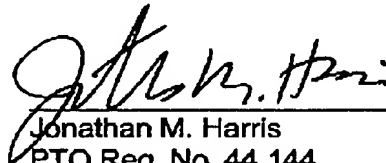
In the course of the foregoing discussions, Applicants may have at times referred to claim limitations in shorthand fashion, or may have focused on a particular claim element. This discussion should not be interpreted to mean that the other limitations can be ignored or dismissed. The claims must be viewed as a whole, and each limitation of the claims must be considered when determining the patentability of the claims. Moreover, it should be understood that there may be other distinctions between the claims and the prior art which have yet to be raised, but which may be raised in the future.

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If any fees or time extensions are inadvertently omitted or if any fees have been overpaid, please appropriately charge or credit those fees to Hewlett-Packard Company Deposit Account Number 08-2025 and enter any time extension(s) necessary to prevent this case from being abandoned.

Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,



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